

usually appearing falsely to be the lower one, as the tough evergreen blades turn on their very narrow, involute, nearly terete, and evidently weak bases. However, one may easily trace the adaxial surface with the naked eye from the inside of the sheath, past the tiny ligule, through the groove in the slender base of the blade, to the broad glaucous surface with usually involute margins.

The leaves of *Oryzopsis racemosa* (Sm.) Hitchc., being cauline rather than basal, and even more conspicuous, have fared a little better in manuals and the score is nearly even. The Manual of Grasses says "pubescent beneath," and Gleason uses the identical phrase. Torrey (under the synonym *O. melanocarpa*) again disappoints us, with "pubescent underneath." Deam, however, says "pubescent above," as does Fernald in the 8th edition of Gray's Manual, and as did the 7th edition (earlier ones omitting the point). Jones (Fl. Ill., 1950) says "the upper surface pubescent." On all specimens which I have examined, the leaf blades are characteristically short-pilose *above*, although there is sometimes a little pilosity below in addition.

If a moral is to be drawn from these simple observations, it is that those who write local floras have no basis for an accurate product other than painstaking examination of "nature, not books." — HERBARIUM, UNIVERSITY OF MICHIGAN, ANN ARBOR.

### A CHECK LIST OF WALTER DEANE'S SEEDLING COLLECTION

RICHARD J. EATON

The extensive and beautifully prepared herbarium of Walter Deane came to the New England Botanical Club by bequest in 1931. It included a bundle which he had designated as his "Seedling Collection" made in 1895 or thereabouts. It consists of meticulously prepared and well-mounted specimens representing fifty-two species in forty-three genera. For each species there are from one to five or more sheets with the specimens arranged in sequence according to age

from cotyledon stage onwards. In many cases a fruiting specimen from the putative parent plant is exhibited as a voucher; in others, a specimen in similar condition collected from the immediate vicinity. In every instance mature identifiable material accompanies the seedlings. Mr. Deane's label data and supplementary field notes are convincing: one is persuaded to accept the identifications without skepticism.

It has been decided to insert this collection, appropriately segregated in separate species covers, in the organized herbarium of the Club. Before doing this, the appended check list was prepared, the nomenclature being revised to conform to that of Gray's Manual, 8th Edition. Without such a list the collection would be effectively lost among the eleven thousand or more species covers which enfold the two hundred thirty thousand mounted sheets in the Club herbarium. Actually, I think that a portion of the original collection, or perhaps a supplement to it, has been "lost" in this manner, because I have encountered from time to time an occasional sheet of seedlings labeled in Mr. Deane's well-known handwriting. From now on a record of such encounters should be kept so as to build up as complete a check list of the Deane seedlings as possible.

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|---|------------------------------------|
| 1. <i>Abies balsamea</i>                      | 20. <i>Silene Cucubalus</i>        |
| 2. <i>Picea mariana</i>                       | 21. <i>Adlumia fungosa</i>         |
| 3. <i>Pinus Strobus</i>                       | 22. <i>Cakile edentula</i>         |
| 4. <i>Alisma triviale</i>                     | 23. <i>Sisymbrium officinale</i>   |
| 5. <i>Betula lutea</i>                        | var. <i>leiocarpum</i>             |
| 6. <i>Ulmus americana</i>                     | 24. <i>Tiarella cordifolia</i>     |
| 7. <i>Polygonum aviculare</i>                 | 25. <i>Hamamelis virginiana</i>    |
| 8. <i>P. Persicaria</i>                       | 26. <i>Geum urbanum</i>            |
| 9. <i>P. orientale</i>                        | 27. <i>Prunus serotina</i>         |
| 10. <i>P. Convolvulus</i>                     | 28. <i>Trifolium repens</i>        |
| 11. <i>P. scandens</i>                        | 29. <i>Lathyrus japonicus</i> var. |
| 12. <i>Chenopodium album</i>                  | <i>glaber</i>                      |
| 13. <i>Atriplex patula</i> var <i>hastata</i> | 30. <i>Oxalis montana</i>          |
| 14. <i>Salicornia europaea</i>                | 31. <i>O. corniculata</i>          |
| 15. <i>Salsola kali</i>                       | 32. <i>Acalypha virginica</i>      |
| 16. <i>Amaranthus retroflexus</i>             | 33. <i>Euphorbia polygonifolia</i> |
| 17. <i>Portulaca oleracea</i>                 | 34. <i>Acer pensylvanicum</i>      |
| 18. <i>Spergularia marina</i>                 | 35. <i>A. rubrum</i>               |
| 19. <i>Stellaria media</i>                    | 36. <i>A. spicatum</i>             |

- |                                |   |
|--------------------------------|---|
| 37. <i>Impatiens capensis</i>  | 46. <i>Galium triflorum</i>                               |
| 38. <i>Malva rotundifolia</i>  | 47. <i>Solidago sempervirens</i>                          |
| 39. <i>Circaea alpina</i>      | 48. <i>Ambrosia artemesiifolia</i><br>var. <i>elatior</i> |
| 40. <i>Fraxinus americana</i>  | 49. <i>Bidens connata</i> var.<br><i>gracilipes</i>       |
| 41. <i>F. nigra</i>            | 50. <i>B. frondosa</i>                                    |
| 42. <i>Lamium amplexicaule</i> | 51. <i>Arctium tomentosum</i>                             |
| 43. <i>Lycopus americanus</i>  | 52. <i>Taraxacum officinale</i>                           |
| 44. <i>Campsis radicans</i>    |   |
| 45. <i>Plantago rugelii</i>    |   |

THE BULBIFEROUS *RANUNCULUS FICARIA*. — Recent examination of this European species in two localities in the Boston area has shown that in both cases it is represented only by the bulbiferous variety, *Ranunculus ficaria* L. var. *bulbifera* Marsden-Jones. Cytotaxonomic studies carried out in Britain have shown that *Ranunculus ficaria* exists in at least two cytodesmes, the diploid *R. ficaria* var. *ficaria* (*R. ficaria* var. *fertilis* Clapham) ( $2n = 16$ ) and the tetraploid *R. ficaria* var. *bulbifera* ( $2n = 32$ ). They are separable on a number of minor morphological and ecological features (see Marsden-Jones in Jour. Linn. Soc. Lond. Bot. 50: 39. 1935 or D. E. Allen in Proc. Bot. Soc. Brit. Is. 3: 45. 1958, or even van Tieghem in Ann. Sci. Nat. sér. 5, 5:88. 1866 who was naturally unaware of the cytological significance of his observations.) but most significant and noticeable of all is the fact that the tetraploid bears bulbils in the leaf axils and has a very reduced seed fertility whereas the diploid is quite fertile and does not produce bulbils. These bulbils do not become apparent until after the plant has been in flower for a few days when they rapidly enlarge to about the size of a grain of wheat.

The two populations examined this spring, one in the garden of 383 South Street, Jamaica Plain and the other in the Case Estates at Weston, both show the production of abundant bulbils. Cytological examination of both populations was made using acetocarmine squashes of the developing bulbils. This proved to be very favorable material, particularly during early stages of development, at which time a mass of cells near the apex of the bulbil is dividing quite